

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at line 13 of page 10 with the following amended paragraph:

Figure 1 illustrates a method of treating cancer in accordance with one exemplary embodiment of the invention. In general, a programmable, wholly implantable medical device (IMD) in accordance with the present invention is implanted at 100. The IMD is operable to deliver electroporation therapy as further described below. A therapy profile defining drug delivery and electroporation parameters may be programmed into the IMD at 202 either prior to or after implantation. A chemotherapy drug is delivered (either locally or systemically) to the target tumor at 104. Optionally, the temperature of the tissue in and around the target tumor may be elevated at 106 to improve electroporation efficiency as further described below. Electroporation therapy, which includes one or more high voltage electrical pulses across the target tumor, may be initiated at 108 in accordance with the therapy profile programmed at 102.

Please replace the paragraph beginning at line 4 of page 11 with the following amended paragraph:

Figure 2 is a simplified schematic view of one embodiment of implantable medical device 200 in accordance with the present invention. IMD 200 shown in Figure 2 is an electroporation a wholly implantable electroporation cancer treatment device having at least first lead 202 attached to hermetically sealed enclosure or housing 204. IMD 200, as further described below, may be implanted near cancerous tumor 250 wholly within human or mammalian body 201.

Please replace the paragraph beginning at line 10 of page 11 with the following amended paragraph:

First lead 202 may be most any length and preferably includes an elongate insulated lead body carrying at least one first electrode 205, which may be concentrically wound, for delivering therapy as further described below. In an embodiment, first lead 202 may be wholly implantable. Preferably, first electrode 205 includes high voltage first coil 206 located near distal end 207 of first lead 202. First electrode 205 may be separated from other components of first lead 202 by tubular insulative sheaths (not shown). High voltage first coil 206 and/or first electrode 205 may be fabricated from platinum, platinum alloy or other materials known to be usable in implantable electrodes.

Please replace the paragraph beginning at line 11 of page 12 with the following amended paragraph:

IMD 200 may be programmed, either before or, more preferably, after, implantation via external programming device or apparatus 254. Programming device 254 may include telemetry circuitry 256 to permit wireless communication with logic and control circuitry of IMD 200 as is generally known in the art. In an embodiment, the logic and control circuitry may be contained within housing 204.

Please replace the paragraph beginning at line 16 of page 13 with the following amended paragraph:

First lead 202 may also incorporate drug catheter 220 for delivering a chemotherapy drug from reservoir 314 of IMD 200 wholly implantable medical device 200 to distal end 207. To accommodate catheter connection, the connector at the proximal end of first lead 202 may be bifurcated into electrical connector 218 and catheter port 222, both of which may couple to header 216. Catheter port 222 allows interconnection of drug reservoir 314 to catheter 220. Housing 204 may include refill valve 226 to permit filling and refilling of drug reservoir 314 contained within housing 204.

Please replace the paragraph beginning at line 24 of page 13 with the following amended paragraph:

Figure 3 is a block diagram illustrating the constituent components of IMD 200 in accordance with one embodiment of the present invention. IMD 200 is shown as including logic and operative control circuitry 302, which is preferably coupled to microcomputer circuit 304. Sensor circuitry, e.g., sensor amp 306, typically (although not necessarily) provides a sensor input, in an embodiment a biological parameter, to logic and operative control circuitry 302 that varies as a function of a measured parameter relating to the patient's condition. For example, sensor amp 306 may be coupled to temperature sensor 215 and calibrated to provide a temperature signal to logic and operative control circuitry 302. Sensor amp 306 may couple to sensor 215 via electrical connector 218 (see Figure 2).